MP is criticised for saying that marriage of first cousins is a health problem

Owen Dyer *London*

A Labour MP has called for a public debate on the genetic risks of marriages between first cousins in Britain's Pakistani community, after reports of an unusually high rate of autosomal recessive disorders among children near her constituency.

Ann Cryer, MP for Keighley in West Yorkshire, said on the BBC television programme *Newsnight*: "We have to stop this tradition of first cousin marriages."

"As we address problems of smoking, drinking, obesity, we say it's a public health issue, and therefore we all have to get involved with it in persuading people to adopt a different lifestyle. I think the same should be applied to this problem in the Asian community. They must adopt a different lifestyle. They must look outside the family for husbands and wives for their young people."

Ms Cryer's comments came after Bradford paediatricians noted an unusually high rate of autosomal recessive disorders among children. Peter Corry, a paediatrician at the Bradford Royal Infirmary, said an "informal data collection" among colleagues showed that approximately 140 different autosomal recessive disorders had been seen locally in the past few years.

Dr Corry said that in a typical health authority the number of such disorders would be about 20 to 30. Recent years have seen a "gradual increase" in the number of cases, he said. The number of paediatric neurodegenerative conditions being treated in Bradford has risen from eight in 1986 to 45 today. Bradford's high rate of such conditions was confirmed in a 2004 study in the *Archives of Disease in Childhood* (2004;89:8-12).

A "large majority" of the affected children are of Pakistani origin, he acknowledged. But Dr Corry stressed that he and his colleagues were simply reporting disease as part of their paediatricians' duties. "While we are aware that there is increased risk, most cousins who marry have healthy children," he said.

A study by the Wellcome Trust of genetic risk counselling among British families of Pakistani origin, conducted by an Oxford University anthropologist, Alison Shaw, in 2002, estimated that the average national risk of autosomal recessive disorders is about two in every 100 births and that the risk is doubled in first cousin marriages (www.wellcome.ac.uk/en/genome/geneticsandsociety/hg14f005.html).

Frances Flinter, a clinical geneticist at Guy's Hospital, London, gave a similar estimate: "The background rate is about 3%, and research suggests that is roughly doubled in first cousin marriages." But she added that there was considerable local variation.

A survey of 100 randomly chosen Pakistani British mothers in the *Journal of Medical Genetics* (1988;25:186-90) found that 55% were married to a first cousin and that 33% of their mothers had married a first cousin.

Aamra Darr, of Leeds University's Centre for Primary Care Research, co-author of that paper, told the *BMJ*: "Over 20% of humanity come from cultures where consanguineous marriage is common."

Dr Darr also cited the 1990 Birmingham birth study, which followed 4934 babies, of whom 956 were of Pakistani origin, and found a total rate of genetic disorders of 7.8% among infants of Pakistani origin, compared with 4% among those of European origin. Of the children of Pakistani origin, 68.7% had parents who were blood relatives (*Journal of Epidemiology and Community Health* 1990;44:130-5).

Dr Darr said it was counterproductive to single out a culture and that such an approach risked alienating the Pakistani community. Alluding to a film recently produced by the Heart of Birmingham Primary Care Trust highlighting the dangers of first cousin marriage, which drew criticism from many of the city's Pakistanis, she added: "We know that the risk of Down's syndrome increases with advancing maternal age, but we don't see public education films urging mothers to have children younger."

Genetic counselling would be a better way to meet the NHS's goal of providing informed choice, she argued. The nature of genetic risk in large extended families meant that "each affected child is an indicator of a cluster at risk." This simplifies the process of identifying carriers of recessive genes in Pakistani families, she said.

Dr Flinter noted that advocates of first cousin marriage point to low divorce rates and strong family support networks. "I think genetic counselling is the best way to minimise risk while respecting the benefits of other cultures' arrangements," she said.

A spokesman for Ann Cryer stressed that the MP had not been suggesting legislation on the issue but was merely trying to stimulate public debate. "We expected a storm of protest, but Ann's comments have been quite well received here [West Yorkshire]," he added. □

UK report recommends fortification of flour with folate

Susan Mayor *London*

A UK draft report has recommended introducing mandatory fortification of flour with folate to prevent the development of neural tube defects in fetuses during pregnancy. It also calls for better efforts to monitor and treat vitamin B-12 deficiency in elderly people, because if fortification is introduced a high intake of folate can mask the symptoms of the deficiency.

The report published this week by the Scientific Advisory Committee on Nutrition, an independent expert committee that advises the Food Standards Agency and health departments, reviewed all the available evidence on folate (a generic term for compounds exhibiting the activity of folic acid) and human health published up to October 2005.

The call for folate in flour comes because the number of pregnancies in which neural tube defects occurred in the United Kingdom has not declined over the past few years, despite greater awareness of the benefits of taking folic acid supplements.

An estimated 551 to 590 pregnancies with neural tube defects occurred in England and Wales in 2002. Had flour been fortified with folate there would have been 156 fewer affected fetuses, the report says.

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Fortification with folate, which is found in spinach (above), is recommended to reduce the incidence of neural tube defects

A previous UK review of the issue (by the Food Standards Agency in 2002) decided against fortifying flour with folic acid because of concerns that it could mask vitamin B-12 deficiency, by treating anaemia associated with the deficiency but failing to prevent the progression of neurological symptoms that lead to irreversible damage.

The draft report, *Folate and Disease Prevention*, is at www.sacn.gov.uk.